FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT

U.S. Department of Energy

Headquarters Procurement Services

GNEP Deployment Studies

Funding Opportunity Number: DE-PS01-07NE24448

Announcement Type: Initial

CFDA Number: 81.121

Issue Date: 05/09/2007

Application Due Date: **06/21/2007** at 11:59:59 PM Eastern Time

NOTE: REQUIREMENTS FOR GRANTS.GOV

Where to Submit: Applications must be submitted through Grants.gov to be considered for award. You cannot submit an application through Grants.gov unless you

are registered. Please read the registration requirements carefully and start the process immediately. Remember you have to update your CCR registration annually. If you have any questions about your registration, you should contact the Grants.gov Helpdesk at 1-800-518-4726 to verify that you are still registered in Grants.gov.

Registration Requirements: There are several one-time actions you must complete in order to submit an application through Grants.gov (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), register with the credential provider, and register with Grants.gov). See www.grants.gov/GetStarted. Use the Grants.gov Organization Registration Checklist at http://www.grants.gov/assets/OrganizationRegCheck.doc to guide you through the process. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in the CCR registration process. Applicants, who are not registered with CCR and Grants.gov, should allow at least 21 days to complete these requirements. It is suggested that the process be started as soon as possible.

IMPORTANT NOTICE TO POTENTIAL APPLICANTS: When you have completed the process, you should call the Grants.gov Helpdesk at 1-800-518-4726 to verify that you have completed the final step (i.e. Grants.gov registration).

Questions: Questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. Part VII of this announcement explains how to submit other questions to the U.S. Department of Energy.

Application Receipt Notices

After an application is submitted, the Authorized Organization Representative (AOR) will receive a series of five e-mails. It is extremely important that the AOR watch for and save each of the e-mails. It may take up to two (2) business days from application submission to receipt of e-mail Number 2. When the AOR receives e-mail Number 5, it is their responsibility to follow the instructions in the e-mail to logon to IIPS and verify that their application was received by DOE. The titles of the five e-mails are:

Number 1 - Grants.gov Submission Receipt Number
Number 2 - Grants.gov Submission Validation Receipt for Application Number
Number 3 - Grants.gov Grantor Agency Retrieval Receipt for Application Number
Number 4 - Grants.gov Agency Tracking Number Assignment for Application Number
Number 5 - DOE e-Center Grant Application Received

The last e-mail will contain instructions for the AOR to register with the DOE e-Center. If the AOR is already registered with the DOE e-Center, the title of the last e-mail changes to:

Number 5 - DOE e-Center Grant Application Received and Matched

This e-mail will contain the direct link to the application in IIPS. The AOR will need to enter their DOE e-Center user id and password to access the application.

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PART I – FUNDING OPPORTUNITY DESCRIPTION

A. SUMMARY

The U.S. Department of Energy (DOE) is seeking applications from industry on endeavors to explore the technical and business parameters that would support the Global Nuclear Energy Partnership (GNEP) program. Information is being sought in the areas of business planning, technology development roadmaps, conceptual design studies for GNEP facilities, and a communications plan for disseminating scientific, technical and practical information relating to closing the fuel cycle. The conceptual design studies for GNEP facilities will focus on providing scope, cost and schedule information for the initial nuclear fuel recycling center and advanced recycling reactor, with capabilities of: 1) separating light water reactor spent nuclear fuel into its reusable components and waste components, 2) reducing the volume, heat load and radio-toxicity of waste requiring geologic repository disposal, and 3) generating electricity with an advanced reactor that consumes transuranic elements as part of its fuel. The business plan, technology development roadmap and communications plan will address approaches to achieve the overall long-term GNEP goals and will be used to inform the public and key stakeholders regarding proposed options for successful GNEP implementation. Applicants with expertise to design, build, and operate GNEP facilities are encouraged to respond to this Funding Opportunity Announcement and share their recommendations for GNEP deployment.

B. BACKGROUND

GNEP, announced as part of the President's Advanced Energy Initiative in February 2006, is a comprehensive strategy to increase U.S. and global energy security, reduce the risk of nuclear proliferation, encourage clean energy development around the world, and improve the environment.

The broad goals of GNEP are described in the January 2007 GNEP Strategic Plan and the Report to the U.S. Congress – Spent Nuclear Fuel Recycling Program Plan issued May 2006, that can be found at:
http://www.gnep.energy.gov/pdfs/snfRecyclingProgramPlanMay2006.pdf .

A plentiful, reliable supply of energy is the cornerstone of sustained economic growth and prosperity. Nuclear power is the best proven technology to produce abundant supplies of

reliable base-load electricity with minimal air pollution or emissions of greenhouse gasses. GNEP provides for the safe expansion of clean, affordable nuclear power to meet the growing worldwide demand for energy and encourage growth and prosperity around the globe. GNEP addresses the two key barriers to full development of nuclear power in the later half of the twentieth century: 1) how to safely use sensitive technologies in a responsible way that protects global security; and 2) how to safely dispose of nuclear waste. GNEP focuses on overcoming these barriers in cooperation with other advanced nuclear nations to bring the benefits of nuclear energy to the world safely and securely.

The GNEP program is in the "conceptual design phase" with multiple technical and programmatic approaches under consideration. DOE has determined that it is in the best interest of the public to solicit input from the nuclear industry regarding approaches to closing the nuclear fuel cycle to achieve the GNEP goals as outlined in the GNEP Strategic Plan. Through this Funding Opportunity Announcement (FOA), industry shall provide analysis of various approaches to implementing GNEP, including the pros and cons of these approaches and recommendations. The overall goal of GNEP is to put in place a closed fuel cycle system capable of producing products of value to the marketplace and meet U.S. Government non-proliferation and waste management objectives. The inputs from recipients in conjunction with other data will be used to inform the Secretary of Energy's decision, scheduled for 2008, on the path forward for GNEP and to educate and inform the public as to the potential approaches for implementation of GNEP and achieving the overall long-term GNEP goals.

Closing the fuel cycle is a large and complex undertaking that will span decades and affect many governments, industries, and citizens. It is therefore appropriate to solicit input from key stakeholders. This FOA provides an opportunity for nuclear industry participants to provide input and recommendations on how to effectively and efficiently implement the GNEP goals.

Pursuant to the National Environmental Policy Act (NEPA) process, the Department is currently preparing a GNEP Programmatic Environmental Impact Statement and evaluating proposed activities under GNEP, including technologies and potential sites for development of those technologies. To assist the Department in its evaluation, in August 2006, DOE solicited input from entities that were interested in hosting one or more of the proposed GNEP facilities. In November 2006, DOE identified 13 sites for consideration as a location for one or more of the GNEP facilities, and in January 2007 DOE awarded funding to 11 entities to perform siting studies to gather initial data for evaluation of the suitability of these sites to host GNEP facilities. The NEPA process involved public scoping meetings in the vicinity of these locations. There will be future opportunities for additional public input as part of the NEPA process.

In August 2006, DOE also issued a Request for Expressions of Interest seeking input from industry regarding DOE's GNEP plans. In September 2006, DOE received submissions from 18 entities. Several entities provided substantial detail in their submissions, and DOE has learned from this input. DOE's vision for successful GNEP implementation has matured as articulated in the GNEP Strategic Plan released in January 2007, and DOE has a need for more detailed study regarding the potential approaches to achieving the GNEP vision.

Pursuant to this FOA, DOE seeks to provide financial assistance to recipients to analyze and plan in more detail the actions that need to be taken to transition from today's state-of-the-art spent fuel separations, fuel fabrication, and fast reactor technologies to the nuclear fuel cycle

envisioned in the GNEP Strategic Plan. DOE anticipates that the full implementation of GNEP and the closing of the fuel cycle may take decades. DOE contemplates the role of the U.S. Government to be more substantial in the beginning with the goal of reducing the U.S. Government's role over time. Achieving this goal would result in successful commercialization of the entire fuel cycle industry, with the exception of certain high-level waste disposal activities. DOE would seek to transfer risk from government to industry. As part of this transfer, there should be sufficient technology demonstrations of proposed designs to ensure scale-up and deployment risks are acceptable. GNEP is an international program; therefore, DOE expects integration with other countries. Implementing GNEP is technically challenging; therefore, DOE expects utilization of and integration with the best minds in the world, including national laboratories and universities. DOE is seeking to establish an environment where risks are low enough and opportunities great enough for industry to take the initiative to design, build and operate GNEP facilities.

DOE expects to award financial assistance by September 2007 to between three and six qualified entities, with initial deliverables due by January 18, 2008. Those entities that perform satisfactorily may have the opportunity to receive a continuation through September 2008. DOE currently anticipates that the Secretary will, subject to completion of the NEPA process, issue a Record of Decision in 2008 concerning whether to pursue GNEP and the development of proposed GNEP facilities. Should the decision favor continued work, selected entities may receive a second continuation through September 2009, subject to availability of funds and other considerations.

Assuming the Secretary of Energy decides in 2008 to pursue development and deployment of proposed GNEP facilities, DOE could issue a new solicitation for entities to propose to design and build GNEP facilities, with a goal of making awards in fiscal year 2009. All phases of work under this FOA would be separate from any future solicitation for GNEP facility design and build activities.

C. STATEMENT OF OBJECTIVES

The objective of this FOA is to select, fund, and conduct projects to:

1) Develop a credible business plan that details how industry will engage in developing and commercializing advanced fuel cycle technologies;

2) Develop a detailed GNEP technology development roadmap for demonstrating solutions to those remaining technical issues needed to support commercial GNEP capabilities;

3) Develop conceptual design studies providing scope, cost and schedule information for a commercial nuclear fuel recycling center and/or a commercial advanced recycling reactor; and

4) Develop a communications plan to disseminate scientific, technical and practical information relating to nuclear energy and to the closing of the fuel cycle.

Under this funding opportunity, the recipient's studies are expected to result in the following:

1) A summary report to be used by DOE to inform the Secretary's decision and to share with the U.S Congress, key stakeholders and the public options for successful GNEP

implementation. This report should address each of the four subject areas described in Section D, “Project Description,” and make recommendations regarding the government-industry path forward envisioned for establishing viable advanced nuclear fuel cycle businesses. This report should not contain any proprietary data.

2) A submission providing the technical basis behind the summary report. This submission should include, but not be limited to, detailed analysis, data, financial information and test results. This submission may contain proprietary data, i.e., data developed at private expense outside of this award and properly marked as limited rights data.

Appendix A contains a list of questions that should be addressed by the recipient in the course of working under this award. The recipient should propose additional questions that it believes are relevant to its approach. Based on the applicant’s inputs on Appendix A, DOE and the recipient will reach mutual agreement on a modified Appendix A, prior to the initiation of work. Questions do not need to be answered individually, rather it is expected that recipients address the content of the questions in an integrated approach in the course of preparing the reports.

Even though some preliminary ideas have begun to form in the GNEP program, DOE seeks innovative thinking by industry that would lead to the realization of a near-term commercial endeavor. This could include incremental approaches that meet the GNEP vision in a step-wise fashion. Key obstacles to making GNEP a successful commercial enterprise should be identified and solutions provided. The strength of the integration of the conceptual design studies and the technology roadmap and how the approach fits with the recipient’s long-term business plan is viewed as very important.

D. PROJECT DESCRIPTION

To accomplish the objective of this funding opportunity, the recipient should complete the tasks in the four primary areas:

1. Business Plan;

2. Technology Development Roadmap;

3. Conceptual Design Studies; and

4. Communications Plan.

DOE will consider applications that address only one of the advanced recycling facilities in the Conceptual Design Studies and Technology Development Roadmap areas, but the business plan should address all GNEP facilities. Specifically, applicants should address nuclear fuel recycling facilities, fuel fabrication facilities and advanced recycling reactors, their integration with each other, and their integration with the existing marketplace. It may also be appropriate to describe the business case for an individual recycling facility.

Each of the above areas is discussed in the following sections.

1. Business Plan

One primary area of work for recipients under this award is to develop a credible business plan that details how commercial firms would engage in developing and commercializing the needed advanced fuel cycle technologies. The business plan should present how a nuclear fuel recycling system would function as a business enterprise. The business plan should also address the interests of all parties directly involved in the system including: a nuclear fuel recycling center vendor, a fuel recycling center operator, a recycling reactor vendor, a reactor operator (e.g., a utility), the U.S. Government, and other stakeholders. The business plan should describe how many facilities would be required and in what time frames they would be required to meet the long term GNEP vision. The business plan should identify the level of technology development that has been achieved and provide appropriate detail on relevant processes and process costs, identify the areas for which government investments would be most needed, how to best facilitate those investments, and contain plausible schedules and financial projections with key data identified and explained.

2. Technology Development Roadmap

The commercial sector and DOE need to have an understanding of the areas of technology development required for potential commercialization of nuclear fuel recycling. The recipient should create a technology development roadmap describing the state of the current technology, perform a gap analysis, and define the methods and plans to acquire the technology that would be needed to implement the GNEP vision. Recipients should describe their recommended deployment approach that clearly identifies those systems, components, and processes requiring technology development to be ready for commercial deployment. The roadmap should identify what technical areas associated with the proposed approach would benefit from additional research, development, and demonstration (RD&D) activities; how and to what extent this RD&D would mitigate technical or technology risk; estimated timeframes and cost to accomplish this RD&D; and parties that should perform the activities. All assumptions shall be documented.

The GNEP vision includes an RD&D capability. This capability is planned to be constructed as part of the advanced fuel cycle facility. The current expectation is that this facility would be a government-owned facility at a DOE site. The facility itself is not part of this FOA but its role as well as the role of existing DOE national laboratory assets and international assets should be addressed as part of the overall business plan and technology development roadmap.

This technology development roadmap should describe the level of technical maturity of all the necessary technologies using Appendix B, which is an approach that is similar to the National Aeronautics and Space Administration (NASA) Technology Readiness Levels. The technology development roadmap should be based on industry experience, and the results of the engineering analysis and design performed by the award recipient. This activity should:

A. Define the scope and boundaries for the roadmap including a comprehensive list of what technology needs exist based on industry experience and the engineering analysis and design performed by the recipient.

B. Develop the technology roadmap based on the recipient’s business approach. This effort should identify critical system requirements, specify the major technology areas, specify major technology drivers and their targets, identify technology alternatives and their timelines, and recommend technology alternatives that should be pursued. The roadmap

should describe how and when the technology gaps would be closed, who would be responsible to close them, a rough order of magnitude estimate of how much it would cost and where the work to close the gaps would be done. The roadmap should also describe which technologies would need to be completed prior to design completion, which could be pursued in parallel with design and construction, and which could provide future economic and operational improvements.

3. Conceptual Design Studies

The recipient should develop conceptual design studies that support a commercial nuclear fuel recycling center, a commercial advanced recycling reactor, or both. The nuclear fuel recycling center should be capable of performing the following functions; 1) separating light water reactor spent nuclear fuel into reusable and waste components, 2) fabrication of fuel containing transuranics to be used in an advanced recycling reactor, and 3) separating advanced recycling reactor spent fuel. The advanced recycling reactor would generate electricity while consuming fuel containing transuranics. Multiple scenarios, facilities, or facilities that evolve over time are possible. This activity should:

A. Perform engineering analysis and design in sufficient detail so that issues relating to the construction and operation of the recycling facilities can be documented and understood. The engineering analysis and design should produce the following:

a. High level functional and operational requirements consistent with the recipient's approach and the programmatic goals of GNEP.
b. Design criteria that include the appropriate codes and standards necessary for the recipient's approach.
c. Engineering and architectural drawings in sufficient detail to highlight technology development and operational issues, and to serve as the basis of the cost estimate. At a minimum, this effort should include drawings depicting architectural, civil, structural, mechanical, electrical, instrumentation and control, HVAC, fire protection and life safety systems, utilities, materials management, waste management, and the balance of plant.
d. The design effort should also include a description of how much flexibility could be built into a capability to accommodate future technology and economic improvements. Any modular conceptual design studies that would allow for evolving strategies or technologies should also be described.
e. A written description of major operations (e.g., fuel fabrication, refueling, major equipment repair/replacement, etc.) and how they would be accomplished to help estimate life cycle cost estimates of operation.
f. Cost estimates that include an estimate of the design effort, an estimate of the initial capital costs to construct a facility, and a life cycle cost estimate addressing annual operating costs and decontamination and decommissioning costs. In addition, a more detailed cost estimate for the first five years of the recommended action should be provided that includes all costs and includes an annual funding profile. Since DOE may make multiple awards, it will be necessary to use a common code of accounts so DOE can compare cost estimates. The applicant should use the code of accounts from the Cost Estimating Guidelines for Generation IV Nuclear Energy Systems in Appendix C for the advanced recycling reactor and the WBS structure in Appendix D for the nuclear fuel recycling center. All cost estimates should also be presented in net present value for comparison purposes as described in OMB Circular A-94.
g. Schedule estimates should be provided that include all aspects of the recipient's recommended course of action, from initial design through completion of operations.

Schedule estimates should be logic-tied with a single, well-defined critical path. Schedule estimates should also include all critical technology needs with logic-tied contingencies for back-up technologies.
h. A list of design and operational assumptions should be maintained throughout the engineering effort and included in the summary report at the end of the project.
i. An equipment list of significant equipment.
j. Mass and energy balances for all major operations.
k. Process block-flow diagrams, showing the flow of uranium, plutonium, minor actinides, and key fission products.
l. A time-phased estimate of the domestic labor force necessary to accomplish design, construction, and operation consistent with your proposed schedule. Include a discussion of the recruiting and training strategy.
m. An assessment of the supply chain to support the construction of a nuclear fuel recycling center and an advanced recycling reactor. Identify areas where industrial infrastructure is inadequate (e.g., reactor vessels). Identify actions that should be taken to ensure the supply chain would be prepared to deploy the GNEP facilities and estimate the cost, including the fraction of that cost that would likely need to be funded by the U.S. Government and why.

B. A section of the conceptual design studies report(s) should describe all regulatory and licensing assumptions and issues. The report section should include potential solutions as well as impacts to the design and technology needs. The report should explain which regulations the nuclear fuel recycling center and advanced recycling reactor would likely fall under and suggestions on improving licensing predictability, assuming the Nuclear Regulatory Commission (NRC) licenses GNEP facilities.

C. The design effort should accommodate the following requirements:

a. Commercial facilities will be licensed by the NRC and will be eligible for International Atomic Energy Association (IAEA) safeguards.
b. The nuclear fuel recycling center shall not separate pure plutonium.
c. The advanced recycling reactor shall be a fast spectrum sodium-cooled reactor with the ability to consume transuranic elements from recycled spent fuel.
d. The advanced recycling reactor shall produce electricity.
e. The design effort shall identify the products and their characteristics for the recipient’s business plan approach that will be used to generate revenue (e.g., uranium, advanced recycling reactor fuel, electricity, etc.).
f. The nuclear fuel recycling center shall be designed to manage wastes in such a manner as to reduce the burden to a geologic repository by decreasing the volume, heat load and radio-toxicity of waste requiring geologic repository disposal and have a disposition path for wastes that are not going to geologic repository disposal.
g. All GNEP facilities shall be designed to meet applicable environmental and safety regulations and standards.

4. Communications Plan

A communications plan should be developed that can be used by DOE to disseminate scientific, technical and practical information relating to nuclear energy and to the closing of the nuclear fuel cycle. Closing the fuel cycle involves complex scientific and technical issues, and the schedule that would be required for full implementation spans decades. Furthermore, GNEP implementation has impacts on many other DOE programs that would

require integration. The communications plan should develop methods to disseminate scientific, technical and practical information relating to nuclear fuel recycling and the closing of the fuel cycle so that the potential cost and potential effects on the efficiency of the fuel cycle may be understood. The basic purpose of this plan is to provide the framework by which DOE could disseminate such information so as to provide that free interchange of ideas which is essential to scientific and industrial progress and public understanding.

E. DELIVERABLES

The GNEP deployment studies will be conducted in three distinct phases with associated reports produced and various activities in each phase as follows:

Project Objective Delivery Time
Initial Award:
Kickoff Meeting Mid-September 2007

Issue Preliminary Reports January 18, 2008
for review - Business Plan,
Technology Development
Roadmap, and Conceptual
Design Studies and
Communications Plan

Address DOE guidance and February 28, 2008
refine project description
for the next continuation period

Continuation #1 -- Assuming continuation and pending funding availability

Issue Final Reports — Business April 11, 2008
Plan, Technology Development
Roadmap, Conceptual Design
Studies, and Communications Plan

Issue revised final reports September 30, 2008

Continuation #2 -- Assuming continuation and pending funding availability

Kickoff Meeting and Finalize Mid-October 2008
FY-09 Work Plan

Issue updated preliminary January 15, 2009
reports incorporating DOE's
Secretarial Decision

Issue final reports September 30, 2009
incorporating DOE's
Secretarial Decision

Reports should be completed that summarize the results of the project to date and document any recommendations. A summary report containing no proprietary data and a more detailed supporting submission, as discussed in paragraph C, "Statement of Objectives," will be submitted for each deliverable.

In the second phase, the recipient would provide analysis and make recommendations for the best potential path forward. The analysis and recommendations would delineate which actions should be taken by the U.S. Government and which would be done by the private sector.

In the third phase, the recipient would incorporate the results of the Secretarial decision in its approach and further develop its conceptual design studies, business plan, and technology development roadmap.

PART II – AWARD INFORMATION

A. TYPE OF AWARD INSTRUMENT.

DOE anticipates awarding grants, cooperative agreements, or technology investment agreements (TIAs) under this program announcement.

TIAs are a new type of assistance instrument for DOE, but they have been used by the Department of Defense for many years to support or stimulate research projects involving for-profit firms, especially commercial firms that do business primarily in the commercial marketplace. TIAs are different from grants and cooperative agreements in that the award terms may vary from the Government-wide standard terms (See DOE TIA regulations at 10 CFR part 603). The primary purposes for including TIAs in the type of available award instruments are to encourage non-traditional Government contractors to participate in this RD&D program and to facilitate new relationships and business practices. A TIA can be particularly useful for awards to consortia (See 10 CFR 603.225(b) and 603.515, Qualification of a consortium).

An applicant may request a TIA if it believes that using a TIA could benefit the RD&D objectives of the program (See section 603.225) and can document these benefits. After an applicant is selected for award, the Contracting Officer will determine if awarding a TIA would benefit the RD&D objectives of the program in ways that likely would not happen if another type of assistance instrument were used (e.g., cooperative agreement subject to all the requirements of 10 CFR part 600). The Contracting Officer will use the criteria in10 CFR 603, Subpart B to make this determination.

Other Requirements for a TIA. In accordance with 10 CFR 603.215, to the maximum extent practicable, non-Federal parties carrying out a RD&D project under a TIA are to provide at least 50% cost sharing, even though the statutory cost sharing requirement may be less. The Contracting Officer will consider the amount of cost sharing proposed in determining if a TIA is the appropriate instrument for a particular project.

B. ESTIMATED FUNDING.

Approximately $15 million is expected to be available for new awards in FY 2007 and an additional $45 million is expected to be available for awards under this announcement in years FY 2008 through FY 2009.

C. MAXIMUM AND MINIMUM AWARD SIZE

Ceiling (i.e., the maximum amount for an individual award made under this announcement) $ None

Floor (i.e., the minimum amount for an individual award made under this announcement) $ None

D. **EXPECTED NUMBER OF AWARDS.**
DOE anticipates making 3-6 awards under this announcement depending on the size of the awards.

E. **ANTICIPATED AWARD SIZE.**
DOE anticipates that awards will be in the $5-10 million range for the total project period.

F. **PERIOD OF PERFORMANCE.**
DOE anticipates making awards that run for 6 months. Continuation funding is dependent upon succesful progress, availability of appropriated funds, and programmatic decisions on the direction of the GNEP program.

G. **TYPE OF APPLICATION.**
DOE will accept new applications under this announcement.

PART III – ELIGIBILITY INFORMATION

A. **ELIGIBLE APPLICANTS.**
As a result of its unique status in the commercial energy market, for the purposes of this funding opportunity, the restriction on funding a Federal Agency is waived with respect to the Tennessee Valley Authority only.

B. **COST SHARING.**
Cost sharing is not required for grants or cooperative agreement awards under 10 CFR 600. However, cost sharing is generally required for TIA awards. To the maximum extent practicable, the non-Federal parties performing the work under a TIA are to provide at least 50% cost sharing in conformance with 10 CFR 600.525 through 10 CFR 600.555. The Contracting Officer will consider the amount of cost sharing proposed in determining if a TIA is the appropriate instrument for a project. The Contracting Officer may accept any cash or in-kind contributions that meet the criteria set forth in 10 CFR 603.530 through 10 CFR 603.555. In addition, the Contracting Officer may consider whether cost sharing is impracticable, after assessing the Applicant's other commitments to successfully performing the work..

C. **OTHER ELIGIBILITY REQUIREMENTS.**
Federally Funded Research and Development Center (FFRDC) Contractors.

FFRDC contractors are not eligible for an award under this announcement, but they may be proposed as a team member on another entity's application subject to the following guidelines:

Authorization for non-DOE/NNSA FFRDCs. The Federal agency sponsoring the FFRDC contractor must authorize in writing the use of the FFRDC contractor on the

proposed project and this authorization must be submitted with the application. The use of a FFRDC contractor must be consistent with the contractor's authority under its award and must not place the FFRDC contractor in direct competition with the private sector.

Authorization for DOE/NNSA FFRDCs. The cognizant contracting officer for the FFRDC must authorize in writing the use of a DOE/NNSA FFRDC contractor on the proposed project and this authorization must be submitted with the application. The following wording is acceptable for this authorization.

> "Authorization is granted for the _____ Laboratory to participate in the proposed project. The work proposed for the laboratory is consistent with or complimentary to the missions of the laboratory, will not adversely impact execution of the DOE/NNSA assigned programs at the laboratory, and will not place the laboratory in direct competition with the domestic private sector."

Value/Funding. The value of, and funding for, the FFRDC contractor portion of the work will not normally be included in the award to a successful applicant. Usually, DOE/NNSA will fund a DOE/NNSA FFRDC contractor through the DOE field work proposal system and other FFRDC contractors through an interagency agreement with the sponsoring agency.

Cost Share. The applicant's cost share requirement will be based on the total cost of the project, including the applicant's and the FFRDC contractor's portions of the effort.

FFRDC Contractor Effort:

Responsibility. The applicant, if successful, will be the responsible authority regarding the settlement and satisfaction of all contractual and administrative issues, including but not limited to, disputes and claims arising out of any agreement between the applicant and the FFRDC contractor.

DOE/NNSA NATIONAL LABORATORIES ARE NOT ELIGIBLE TO RECEIVE FUNDING AS AN APPLICANT, SUB-RECIPIENT OR TEAM MEMBER

PART IV – APPLICATION AND SUBMISSION INFORMATION

A. **ADDRESS TO REQUEST APPLICATION PACKAGE.**
Application forms and instructions are available at Grants.gov. To access these materials, go to http://www.grants.gov, select "Apply for Grants," and then select "Download Application Package." Enter the CFDA and/or the funding opportunity number located on the cover of this announcement and then follow the prompts to download the application package.

B. **LETTER OF INTENT AND PRE-APPLICATION.**
1. Letter of Intent.
Letters of Intent are not required.

2. Pre-application.
Pre-applications are not required.

C. CONTENT AND FORM OF APPLICATION – SF 424

You must complete the mandatory forms and any applicable optional forms (e.g., SF-LLL- Disclosure of Lobbying Activities) in accordance with the instructions on the forms and the additional instructions below. **Files that are attached to the forms must be in Adobe Portable Document Format (PDF) unless otherwise specified in this announcement.**

1. SF 424 - Application for Federal Assistance.
Complete all required fields in accordance with the pop-up instructions on the form. To activate the instructions, turn on the "Help Mode" (Icon with the pointer and question mark at the top of the form). The list of certifications and assurances referenced in Field 21 can be found on the Applicant and Recipient Page at http://management.energy.gov/business_doe/business_forms.htm, under Certifications and Assurances.

2. Other Attachments Form.
Submit the following files with your application and attach them to the Other Attachments Form. Click on "Add Mandatory Other Attachment" to attach the Project Narrative. Click on "Add Optional Other Attachment," to attach the other files.

Project Narrative File - Mandatory Other Attachment
The project narrative must not exceed 30 pages, including cover page, table of contents, charts, graphs, maps, photographs, and other pictorial presentations, when printed using standard 8.5" by 11" paper with 1 inch margins (top, bottom, left, and right). EVALUATORS WILL REVIEW ONLY THE NUMBER OF PAGES SPECIFIED IN THE PRECEDING SENTENCE. The font must not be smaller than Arial 11 point. Do not include any Internet addresses (URLs) that provide information necessary to review the application. See Part VIII.D for instructions on how to mark proprietary application information. Save the information in a single file named "Project.pdf," and click on "Add Mandatory Other Attachment" to attach.

The project narrative must include:
Project Narrative 1
The project narrative should be concise and demonstrate a thorough understanding of the proposed project. Elaborate presentations are not warranted. This document may include proprietary or sensitive business information that is appropriately marked in accordance with the instructions in Part VIII.D. Each application must contain the following information, as applicable to the proposed project, which should be organized in the following major sections: 1. Project Objective and Plan Details — Describe your project including the objective and detailed plan to accomplish the objective. Include the following information, as applicable to the proposed project, as well as any other information that is needed to support the proposal: a. Describe how the applicant will meet GNEP programmatic objectives as outlined in this funding opportunity announcement and the January 2007 GNEP Strategic Plan. b. Describe details on how the applicant will accomplish the proposed project: * Business Plans * Technology

Development Roadmap * Conceptual Design Studies * Communications Plan c. Address roles and responsibilities of team members and also cite and describe the applicant team members' experience. d. Describe how the project will be managed. 2. Project Timetable - This section should outline month by month all the important activities or phases of the project. Include how the project will be initiated and ramped up. Recipients must use this project timetable to report progress. The project timetable shall include a project schedule and proposed deliverables.
Merit Review Criterion Discussion. The section should be formatted to address each of the merit review criterion and sub-criterion listed in Section V. A. Provide sufficient information so that reviewers will be able to evaluate the application in accordance with these merit review criteria. DOE/NNSA WILL EVALUATE AND CONSIDER ONLY THOSE APPLICATIONS THAT ADDRESS SEPARATELY EACH OF THE MERIT REVIEW CRITERION AND SUB-CRITERION.
In addition, address in a section, to the extent possible, the "Other Selection Factors" in Section V. A. 3.

Project Summary/Abstract File
The project summary/abstract must contain a summary of the proposed activity suitable for dissemination to the public. It should be a self-contained document that identifies the name of the applicant, the project director/principal investigator(s), the project title, the objectives of the project, a description of the project, including methods to be employed, the potential impact of the project (i.e., benefits, outcomes), and major participants (for collaborative projects). This document must not include any proprietary or sensitive business information as the Department may make it available to the public. The project summary must not exceed 1 page when printed using standard 8.5" by 11" paper with 1" margins (top, bottom, left and right) with font not smaller than Arial 11 point. Save this information in a file named "Summary.pdf," and click on "Add Optional Other Attachment" to attach.

SF 424 A Excel, Budget Information – Non-Construction Programs File:
You must provide a separate budget for each year of support requested and a cumulative budget for the total project period. Use the SF 424 A Excel, "Budget Information – Non Construction Programs" form on the Applicant and Recipient Page at http://management.energy.gov/business_doe/business_forms.htm. You may request funds under any of the Object Class Categories as long as the item and amount are necessary to perform the proposed work, meet all the criteria for allowability under the applicable Federal cost principles, and are not prohibited by the funding restrictions in this announcement (See PART IV, G). Save the information in a single file named "SF424A.xls," and click on "Add Optional Other Attachment" to attach.

Budget Justification File
You must justify the costs proposed in each Object Class Category/Cost Classification category (e.g., identify key persons and personnel categories and the estimated costs for each person or category; provide a list of equipment and cost of each item; identify proposed subaward/consultant work and cost of each subaward/consultant; describe purpose of proposed travel, number of travelers and number of travel days; list general categories of supplies and amount for each category; and provide any other information you wish to support your budget). Provide the name of your cognizant/oversight agency, if you have one, and the name and phone number of the individual responsible for negotiating your indirect rates. If cost sharing is required, you must have a letter from

each third party contributing cost sharing (i.e., a party other than the organization submitting the application) stating that the third party is committed to providing a specific minimum dollar amount of cost sharing. In the budget justification, identify the following information for each third party contributing cost sharing: (1) the name of the organization; (2) the proposed dollar amount to be provided; (3) the amount as a percentage of the total project cost; and (4) the proposed cost sharing – cash, services, or property. By submitting your application, you are providing assurance that you have signed letters of commitment. Successful applicants will be required to submit these signed letters of commitments. Save the budget justification information in a single file named "Budget.pdf," and click on "Add Optional Other Attachment" to attach.

Subaward Budget File(s)
You must provide a separate budget (i.e., budget for each budget year and a cumulative budget) for each subawardee that is expected to perform work estimated to be more than $100,000 or 50 percent of the total work effort (which ever is less). Use the SF 424 A Excel for Non Construction Programs or the SF 424 C Excel for Construction Programs. These forms are found on the Applicant and Recipient Page at http://management.energy.gov/business_doe/business_forms.htm. Save each Subaward budget in a separate file. Use up to 10 letters of the subawardee's name (plus .xls) as the file name (e.g., ucla.xls or energyres.xls), and click on "Add Optional Other Attachment" to attach.

Budget for DOE/NNSA Federally Funded Research and Development Center (FFRDC) Contractor File, if applicable.
If a DOE FFRDC contractor is to perform a portion of the work, you must provide a DOE Field Work Proposal in accordance with the requirements in DOE Order 412.1 Work Authorization System. This order and the DOE Field Work Proposal form are available at http://management.energy.gov/business_doe/business_forms.htm. Use up to 10 letters of the FFRDC name (plus .pdf) as the file name (e.g., lanl.pdf or anl.pdf), and click on "Add Attachments" in Field 11 to attach.

3. SF-LLL Disclosure of Lobbying Activities
If applicable, complete SF- LLL. Applicability: If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the grant/cooperative agreement, you must complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying."

Summary of Required Forms/Files
Your application must include the forms from the application package and other documents as shown below:

Name of Document	Format	File Name
SF 424 - Application for Federal Assistance	Form	N/A
Other Attachments Form: Attach the following files to this form:	Form	N/A
Project Narrative File	PDF	Project.pdf
Project Summary/Abstract File	PDF	Summary.pdf

SF 424A Excel - Budget Information for Non-Construction Programs File	Excel	SF242A.xls
Budget Justification File	PDF	Budget.pdf
Subaward Budget File(s)	Excel	See Instructions
Budget for DOE/NNSA Federally Funded Research and Development Center (FFRDC) Contractor File, if applicable.	PDF	See Instructions
SF-LLL Disclosure of Lobbying Activities, if applicable.	Form	N/A

D. **SUBMISSIONS FROM SUCCESSFUL APPLICANTS**.
If selected for award, DOE reserves the right to request additional or clarifying information for any reason deemed necessary, including, but not limited to:

a. Indirect cost information
b. Other budget information
c. Name and phone number of the Designated Responsible Employee for complying with national policies prohibiting discrimination (See 10 CFR 1040.5)
d. Representation of Limited Rights Data and Restricted Software, if applicable
e. Commitment Letter from Third Parties Contributing to Cost Sharing, if applicable

E. **SUBMISSION DATES AND TIMES**
1. Pre-application Due Date.
Pre-applications are not required.

2. Application Due Date.
Applications should be received by 06/22/2007, 11:59:59 PM Eastern Time. You are encouraged to transmit your application well before the deadline. The Grants.gov Helpdesk is not available after 9:00 PM Eastern Time. APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.

F. **INTERGOVERNMENTAL REVIEW**
This program is not subject to Executive Order 12372 – Intergovernmental Review of Federal Programs.

G. **FUNDING RESTRICTIONS.**
Cost Principles. Costs must be allowable in accordance with the applicable Federal cost principles referenced in 10 CFR part 600. The cost principles for commercial organization are in FAR Part 31.

Pre-award Costs. Recipients may charge to an award resulting from this announcement pre-award costs that were incurred within the ninety (90) calendar day period immediately preceding the effective date of the award, if the costs are allowable in accordance with the applicable Federal cost principles referenced in 10 CFR part 600. Recipients must obtain the prior approval of the contracting officer for any pre-award costs that are for periods greater than this 90 day calendar period.

Pre-award costs are incurred at the applicant's risk. DOE is under no obligation to

reimburse such costs if for any reason the applicant does not receive an award or if the award is made for a lesser amount than the applicant expected.

Other
In the event a TIA is awarded, pre-award costs may be charged to the agreement only with the specific approval of the Contracting Officer, in accordance with 10 CFR 603.830.

H. OTHER SUBMISSION AND REGISTRATION REQUIREMENTS

1. Where to Submit.

APPLICATIONS MUST BE SUBMITTED THROUGH GRANTS.GOV TO BE CONSIDERED FOR AWARD. Submit electronic applications through the "Apply for Grants" function at www.Grants.gov. If you have problems completing the registration process or submitting your application, call Grants.gov at 1-800-518-4726 or send an e-mail to support@grants.gov.

2. Registration Process.

You must COMPLETE the one-time registration process (all steps) before you may submit your first application through Grants.gov (See www.grants.gov/GetStarted. **We recommend that you start this process at least three weeks before the application due date.** It may take 21 days or more to complete the entire process. Use the Grants.gov Organizational Registration Checklists at http://www.grants.gov/assets/OrganizationRegCheck.doc to guide you through the process. IMPORTANT: During the CCR registration process, you will be asked to designate an E-Business Point of Contact (EBIZ POC). The EBIZ POC must obtain a special password called "Marketing Partner identification Number" (MPIN). When you have completed the process, you should call the Grants.gov Helpdesk at 1-800-518-4726 to verify that you have completed the final step (i.e. Grants.gov registration).

3. Application Receipt Notices.

After an application is submitted, the Authorized Organization Representative (AOR) will receive a series of five e-mails. It is extremely important that the AOR watch for and save each of the e-mails. It may take up to two (2) business days from application submission to receipt of e-mail Number 2. When the AOR receives email Number 5, it is their responsibility to follow the instructions in the email to logon to IIPS and verify that their application was received by DOE. You will need the Submission Receipt Number (e-mail Number 1) to track a submission. The titles of the five e-mails are:

Number 1 -	Grants.gov Submission Receipt Number
Number 2 -	Grants.gov Submission Validation Receipt for Application Number
Number 3 -	Grants.gov Grantor Agency Retrieval Receipt for Application Number
Number 4 -	Grants.gov Agency Tracking Number Assignment for Application Number
Number 5 -	DOE e-Center Grant Application Received

The last e-mail will contain instructions for the AOR to register with the DOE e-Center. If the AOR is already registered with the DOE e-Center, the title of the last e-mail changes to:

Number 5 - DOE e-Center Grant Application Received and Matched

This e-mail will contain the direct link to the application in IIPS. The AOR will need to enter their DOE e-Center user id and password to access the application.

Part V - APPLICATION REVIEW INFORMATION

A. CRITERIA

1. Initial Review Criteria.

Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for an award; (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement.

2. Merit Review Criteria.

Applications developed in response to this FOA must follow the instructions for content and format and discuss the merit review criteria and other selection factors. In doing so, the application should cover the following topics in sufficient detail to convince DOE that the applicant is highly likely to accomplish the Statement of Objectives. DOE will evaluate the applications and make award selections based on the following criteria:

Criterion 1 - Applicant's Organization and Technical Expertise

A. The applicant and/or applicant's proposed team and its composition, management plan and structure, including their background, experience, and capabilities, and how this effort fits in with the applicant's long term business plan.

B. The relevance and extent of the applicant's expertise relating to GNEP technologies: a) the separation of transuranic elements from recycled spent fuel, b) nuclear fuel fabrication, and c)advanced reactors that consume transuranic elements recycled from the use nuclear fuel.

Criterion 2: Commercial Experience:

A. Experience in the design, construction, and operation of large, complex industrial facilities.

B. Experience in nuclear fuel design, qualification and fabrication.

C. Experience in generation and sale of electricity.

D. Experience in licensing and regulation of nuclear facilities.

E. Experience in obtaining internal and/or external financing for large capital projects.

Criterion 3: Business Modeling and Planning

A. Experience in modeling complex and dynamic systems relating to complex nuclear industry/utility issues.

B. Experience in economic analysis relating to complex nuclear industry/ utility issues.

C. Experience in risk management relating to complex nuclear industry/ utility issues.

Criterion 4: Technology Development

A. Experience in research and development (R&D) relating to complex nuclear industry/utility issues.

B. Experience with successful commericalization of projects that required research

and/or technology development.
Criterion 5: Approach
A. Proposed approach displays in-depth nuclear industry knowledge/ perspective, innovation, and critical thinking.
B. Proposed approach presents appropriate risk management strategies.
C. Proposed approach is reasonable and realistic.
Criterion 6: Schedule and Budget
The applicant's schedule (list of tasks, task sequencing, milestones, decision points and estimated durations) is reasonable and appropriate. The planned assignment of responsibilities and manpower levels are appropriate to accomplish the Statement of Objectives.

3. Other Selection Factors.

The selection official will consider the following program policy factors in the selection process:
1. Cost sharing is not required under this FOA, but applications that offer cost sharing will be given preferential consideration.

2. An integrated technical and business approach will be given preferential consideration.

3. Applications that offer the potential to enhance US nuclear infrastructure will be given preferential consideration.

4. Applications will be balanced to optimize the selection of the appropriate mix of applications to best achieve the GNEP objectives.

B. **REVIEW AND SELECTION PROCESS.**

1. Merit Review.

Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the "Department of Energy Merit Review Guide for Financial Assistance and Unsolicited Proposals." This guide is available under Financial Assistance, Regulations and Guidance at http://management.energy.gov/documents/meritrev.pdf.

2. Selection.

The Selection Official will consider the merit review recommendation, program policy factors, and the amount of funds available.

3. Discussions and Award.

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 10 CFR part 600; and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. **ANTICIPATED NOTICE OF SELECTION AND AWARD DATES.**

DOE anticipates notifying applicants selected for award by 08/07/2007 and making awards by 09/26/2007.

Part VI - AWARD ADMINISTRATION INFORMATION

A. AWARD NOTICES.

1. Notice of Selection.

DOE will notify applicants selected for award. This notice of selection is not an authorization to begin performance. (See Part IV.G with respect to the allowability of pre-award costs.)

2. Notice of Award.

A Notice of Financial Assistance Award issued by the contracting officer is the authorizing award document. It normally includes, either as an attachment or by reference: 1. Special Terms and Conditions; 2. Applicable program regulations, if any; 3. Application as approved by DOE/NNSA; 4. DOE assistance regulations at 10 CFR part 600, Technology Investment Agreement regulations at 10 CFR 603 or, for Federal Demonstration Partnership (FDP) institutions, the FDP terms and conditions; 5. National Policy Assurances To Be Incorporated As Award Terms; 6. Budget Summary; and 7. Federal Assistance Reporting Checklist, which identifies the reporting requirements.

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS.

1. Administrative Requirements.

The administrative requirements for DOE grants and cooperative agreements are contained in 10 CFR part 600 (See: http://ecfr.gpoaccess.gov), except for grants made to Federal Demonstration Partnership (FDP) institutions. The FDP terms and conditions and DOE FDP agency specific terms and conditions are located on the National Science Foundation web site at http://www.nsf.gov/awards/managing/fed_dem_part.jsp.

2. Special Terms and Conditions and National Policy Requirements.

Special Terms and Conditions and National Policy Requirements.

The DOE Special Terms and Conditions for Use in Most Grants and Cooperative Agreements are located at http://management.energy.gov/business_doe/business_forms.htm. The National Policy AssurancesTo Be Incorporated As Award Terms are located at http://management.energy.gov/business_doe/business_forms.htm.

Intellectual Property Provisions.

The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at http://www.gc.doe.gov/techtrans/sipp_matrix.html.

Statement of Substantial Involvement.

a. DOE anticipates having substantial involvement during the project period through technical assistance, advice, intervention, and integration with the recipient. The recipient's responsibilities are listed in paragraph b and DOE's responsibilities are listed in paragraph c.
b. Recipient Responsibilities - The recipient is responsible for:
1) Performing the activities supported by this award, including providing the required personnel, facilities, equipment, supplies and services;
2) Defining approaches and plans, submitting the plans to DOE for review, and incorporating DOE's comments;

3) Managing and conducting the project activities, including coordinating with DOE Management and Operating (M&O) contractors on activities performed under the M&O contracts taht are related to the project;
4) Attending program review meetings and reporting project status;
5) Submitting technical reports as stated in the Federal Assistance Reporting Checklist, and incorporating DOE comments;
6) Presenting the project results at appropriate technical conferences or meetings as directed by the Contracting Officer; and
7) Hosting interim status reviews approximately halfway between each project phase.

c. DOE Responsibilities - DOE is responsible for:
1) Reviewing project plans in a timely manner and providing comments and guidance regarding the work effort;
2) Conducting project review meetings to ensure adequate progress and that the work accomplishes the Statement of Objectives, including redirecting work or shifting work emphasis, if needed;
3) Promoting and facilitating project activities, including disseminating project results through presentations and publications;
4) Serving as scientific/technical liaison between the recipient and other Government agencies and national laboratories; and
5) Performing technical reviews to determine whether to fund the next phase of the project.

d. There are limitations on recipient and DOE responsibilities and authorities in the performance of the project activities. Performance of the project activities must be within the scope of the Statement of Objectives, the terms and conditions of the cooperative agreement, nad the funding and schedule constraints.

C. **REPORTING.**

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to the award agreement. See the attached file for the proposed Checklist for this program**.**

PART VII - QUESTIONS/AGENCY CONTACTS

A. **QUESTIONS**

Questions regarding the content of the announcement must be submitted through the "Submit Question" feature of the DOE Industry Interactive Procurement System (IIPS) at http://e-center.doe.gov. Locate the program announcement on IIPS and then click on the “Submit Question” button. Enter required information. You will receive an electronic notification that your question has been answered. DOE will try to respond to a question within 3 business days, unless a similar question and answer have already been posted on the website
Questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. DOE cannot answer these questions.

B. **Agency Contact**

Name: Lynnette Desorcie

E-mail address: lynnette.desorcie@hq.doe.gov

Fax: 202-287-1452

Telephone: 202-287-1435

PART VIII - OTHER INFORMATION

A. MODIFICATIONS.

Notices of any modifications to this announcement will be posted on Grants.gov and the DOE Industry Interactive Procurement System (IIPS). You can receive an e-mail when a modification or an announcement message is posted by joining the mailing list for this announcement through the link in IIPS. When you download the application at Grants.gov, you can also register to receive notifications of changes through Grants.gov.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE.

DOE reserves the right, without qualification, to reject any or all applications received in response to this announcement and to select any application, in whole or in part, as a basis for negotiation and/or award.

C. COMMITMENT OF PUBLIC FUNDS.

The Contracting Officer is the only individual who can make awards or commit the Government to the expenditure of public funds. A commitment by other than the Contracting Officer, either explicit or implied, is invalid.

D. PROPRIETARY APPLICATION INFORMATION.

Patentable ideas, trade secrets, proprietary or confidentional commercial or financial information, disclosure of which may harm the applicant, should be included in an application only when such information is necessary to convey an understanding of the proposed project. The use and disclosure of such data may be restricted, provided the applicant includes the following legend on the first page of the project narrative and specifies the pages of the application which are to be restricted:

“The data contained in pages _____ of this application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data herein to the extent provided in the award. This restriction does not limit the government’s right to use or disclose data obtained without restriction from any source, including the applicant.”

To protect such data, each line or paragraph on the pages containing such data must be specifically identified and marked with a legend similar to the following:

“The following contains proprietary information that (name of applicant) requests not be released to persons outside the Government, except for purposes of review and

evaluation."

E. **EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL.**
In conducting the merit review evaluation, the Government may seek the advice of qualified non-Federal personnel as reviewers. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The applicant, by submitting its application, consents to the use of non-Federal reviewers/administrators. Non-Federal reviewers must sign conflict of interest and non-disclosure agreements prior to reviewing an application. Non-Federal personnel conducting administrative activities must sign a non-disclosure agreement.

F. **INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM.**
Patent Rights.The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See "Notice of Right to Request Patent Waiver" in paragraph G below.)

Rights in Technical Data. Normally, the government has unlimited rights in technical data created under a DOE agreement. Delivery or third party licensing of proprietary software or data developed solely at private expense will not normally be required except as specifically negotiated in a particular agreement to satisfy DOE's own needs or to insure the commercialization of technology developed under a DOE agreement.

G. **NOTICE OF RIGHT TO REQUEST PATENT WAIVER.**
Applicants may request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of an agreement as a result of this announcement, in advance of or within 30 days after the effective date of the award. Even if such advance waiver is not requested or the request is denied, the recipient will have a continuing right under the award to request a waiver of the rights of the United States in identified inventions, i.e., individual inventions conceived or first actually reduced to practice in performance of the award. Any patent waiver that may be granted is subject to certain terms and conditions in 10 CFR 784.
Domestic small businesses and domestic nonprofit organizations will receive the patent rights clause at 37 CFR 401.14, i.e., the implementation of the Bayh-Dole Act. This clause permits domestic small business and domestic nonprofit organizations to retain title to subject inventions. Therefore, small businesses and nonprofit organizations do not need to request a waiver.

H. **NOTICE REGARDING ELIGIBLE/INELIGIBLE ACTIVITIES.**

Eligible activities under this program include those which describe and promote the understanding of scientific and technical aspects of specific energy technologies, but not those which encourage or support political activities such as the collection and dissemination of information related to potential, planned or pending legislation.

APPENDICES/REFERENCE MATERIAL REFERENCE MATERIAL

Appendix A - Questions for Recipients

Appendix B - Technology Readiness Levels
Appendix C - Cost Estimating Guidelines for Generation IV Nuclear Energy Systems
Appendix D - Work Breakdown Structure for a Nuclear Fuel Recycling Center

Attachment: Reporting Requirements Checklist